

While the issues here overlap with those in our discussion, supra, of section 251(c)(2), the text of the two sections are different and thus commenters should note that the issues are not necessarily identical

The Respondent has replied above.

e) Rate Levels

1. *We seek comment on whether we should establish a generic pricing methodology or impose a ceiling to guide the states in setting the charge for the transport and termination of traffic, and whether any such generic pricing methodology or ceiling should be established using the same principles that might be used to establish any ceiling for interconnection and unbundled elements.*

The concept of access is a critical concept to understand and define since it is through access that competing carriers meet and it is through access that the dominant carrier may have the power to control the nondominant carrier. There are three views of access that are currently in use. These are:

1. ***Access as Externality:*** This is the long standing concept of access that is the basis of the current access fee structures. The RBOC contends that it has certain economic externalities of value that it provides any new entrant and that the new entrant brings nothing of value to the table in the process of interconnecting. The RBOC has the responsibility of universal service and furthermore permits the new entrant access to the RBOCs customers, which brings significant value to the new entrant. In fact, RBOCs argue that a new entrant would have no business if the RBOC did not allow it access to "its" customer base. This school of access is the Unilateral school. Commissioner Barrett has stated publicly on several occasions that any new entrant should reimburse the RBOC for the value the RBOC brings to the table. The RBOCs, especially Bell South are strong supporters of this view.
2. ***Access as Bilateralism:*** This is the view currently espoused by the Commission in some of its more recent filings. It is also the view of the New York Public Service Commission in the tariff allowing Rochester Telephone and Time Warner Communications to interoperate. It also is the view of Ameritech in its proposed disaggregation approach. Simply stated, Bilateralism says that there are two or more LECs in a market. LEC A will pay LEC B for access or interconnect and LEC B will pay LEC A. It begs the question of what basis the reimbursement will be made, what rate base concept, if any, will be used, and what process will be applied to ensure equity.³⁶ This is akin to reinventing the settlements process of pre-divestiture days.

³⁶See the Recent book by Baumol and Sidak, *Toward Competition in Local Telephony*, MIT Press (Cambridge, MA), 1994. The authors assume Bilateralism and then work from there. They do not broach the question of what is best for the industry. Their approach is an academic treatise on what are optimal reimbursement mechanisms, rather than what allows competition.

Bilateralism is rife with delays, with expensive legal reviews and administrative delays. It clearly plays to the hand of the established monopolist. Suffice it to say that U.S. West owns a significant share of Time Warner and one would suspect that there is a presence in this Bilateralism approach. The Bill and Keep proposal of the FCC is a Bilateralism approach.

3. *Access as Competitive Leverage:* This concept of access assumes that there is a public policy of free and open competition and that the goal is providing the consumer with the best service at the lowest possible price. It argues that no matter how one attempts to deal with access in the Bilateral approach, abuses are rampant. Thus the only solution in order to achieve some modicum of Pareto optimality from the consumer welfare perspective is to totally eliminate access fees. The Competitive access school says that the price that the consumer pays for the service should totally reflect the costs associated with its providers and not with the provider of the service of the person that the individual wants to talk to. For example, my local telephone rate does not change if I desire to talk to someone in Mongolia, even if their rates are much higher due to local inefficiencies. The Competitive Access school says that externalities are public goods, created perforce of the publicly granted monopoly status of the past one hundred years. It states further that Bilateralism is nothing more than an encumbrance that allows the entrenched monopolist to control the growth of new entrants, and is quite simply an artifact of pre-divestiture AT&T operations. The only choice for the Competitive Access school is no access at all and price at cost.

The provision of wireless telecommunications services is essential the provision of local exchange service. The service offering is that of a wireless toll grade voice or data service provided through a seamless interoperable national network service. Simply stated, this is the commoditization of local exchange service. Namely, the wireless operator is offering, from the consumers perspective, the same product as the existing monopoly local exchange carrier.

The Commission has made an implicit assumption that there is a single Local Exchange Carrier in each market and has generally identified that carrier with the RBOC. However, the use of the term Local Exchange Carrier, "LEC", can and should be used in a broader sense. Specifically, the LEC should be any purveyor of local telecommunications access, from the point of access to the customer to the trunk side or interconnection side of the carriers means for switching. Namely, the LEC, be there one or several, can and should be considered as the totality of the entity that presents itself to the customer as purveyor of services and in turn provides a point for interconnection at a latter location.

The Telecommunications Act of 1996 defines a Local Exchange Carrier as follows³⁷:

"Local Exchange Carrier.-The term "local exchange carrier" means any person that is engaged in the provision of telephone service or exchange access. Such term does not include a person insofar as such a person is engaged in the provision of a commercial mobile radio service under section 332(c), except to the extent that the Commission finds that such service should include that the Commission finds that such service should be included in the definition of such term."

The exemption is specifically for CMRS, commercial mobile radio services, which has been defined under section 332 as follows:

"Section 332(d)(1) provides that a mobile service will be classified as a "commercial mobile radio service" if it meets two criteria: the service 91) is "provided for profit", and (2) makes "interconnected service" available "to the public" or "to such classes of eligible users as to be effectively available to a substantial portion of the public". "Interconnected Service" is defined in Section 332(d)(2) as "service that is interconnected with the public switched network" or service for which an interconnection request is pending under Section 332(c)(1)(B)."³⁸

The operative term is "mobile" which is defined by example as follows:

".. defines the mobile services regulated as commercial mobile radio services pursuant to Section 332 of the Communications Act of 1934, as amended, 47 U.S.C. § 332, as follows: Private Paging (Part 90), excluding not for profit paging systems that serve only the licensee's own internal communications needs; Business Radio Services (Part 90) that offer customers for-profit interconnected service; Land Mobile Systems on 220-222 MHz (Part 90), except services that are not for profit or do not offer interconnected service; Specialized Mobile Radio Services that provide interconnected service (Part 90); Public Coast Stations (Part 80, subpart J); Public Mobile Service (paging and radiotelephone service and 454 MHz air-ground radiotelephone service) (Part 22, subparts E and G); Cellular Radiotelephone Service (Part 22, subpart H); 800 MHz Air-Ground Radiotelephone Service (Part 22, subpart G); Offshore Radiotelephone Service (Part 22, subpart I); any mobile satellite service involving the provision of CMRS directly to end users, except as exempt under Section 20.9(a)(10); Personal Communications Services (Part 24), except if exempt under Section 20.9(b); for-profit subsidiary communications services transmitted on sub-carriers within the FM baseband

³⁷ ¶ 44 of the Telecommunications Act of 1996, the "1996 Act". Note that this has similarities to the 1934 Act defining a Common Carrier which has been almost a circular definition. Here the definition allows the Commission latitude to make it mean whatever it is meant to mean.

³⁸ ¶ 10 of GN 93-252 dated October 8, 1993.

*signal that provide interconnected service (Part 73); and a mobile service that is the functional equivalent of a commercial mobile radio service. 47 C.F.R. § 20.9.*³⁹

The key issue here is a reseller, disaggregator, agent or other similar entity a purveyor of some or part of the services and thus are they then subsumed under the rubric of the CMRS. This will be discussed in the next sub-section. The Commission has further developed a definition of Wireless Local Loop, WLL, which is proposed as follows.

*"Wireless Local Loop as the path between the subscriber and the first point of switching or aggregation of traffic."*⁴⁰

We argue that this definition has fundamental fault since it does not take into account that aggregation or switching takes place in the cell site and may also, depending on the evolution of the technology take place in the end user terminal.⁴¹

f) Symmetry

1. *We therefore consider symmetrical compensation arrangements as a possible additional requirement only for transport and termination of traffic. We seek comment on whether a rate symmetry requirement is consistent with the statutory requirement that rates set by states for transport and termination of traffic be based on "costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier," and "a reasonable approximation of the additional costs of terminating such calls."*

The Commission has requested comments on the issue of cost allocation for access. We argue here that the issue of any allocation opens the door for arbitrary and capricious allocations of costs allocations can create substantial barriers to entry to any competitor or new entrant. We explain this in the following model.

The cost model for the effects of the proposed tariff structures on the development of the technological infrastructure has been developed below. Specifically, recognizing the proposed bilateral access structure, the model that depicts the results. This section summarizes those results. The model for the pricing is shown below. Here we assume that "P" is the price and that "C" are costs. "A" is the local allocation of costs to price and "T" is the transfer allocation. This model of access is what has been proposed by the FCC. We

³⁹¶ 2 of WT 96-6, dated January 25, 1996.

⁴⁰¶ 6 of WT 96-6, dated January 25, 1995.

⁴¹See the Telmarc Comments, February 26, 1996, on FCC NPRM WT 96-6. In these comments the Respondent details many of the technological issues that demonstrate that the WLL definition is inappropriate and that access vial AirTime has significant influence on what a carrier really is.

shall show that this form leads to the strong possibility of predatory pricing on the part of the existing monopolist and thus is a per se violation of the antitrust laws.⁴²

Let the prices charged to the customer be given by:

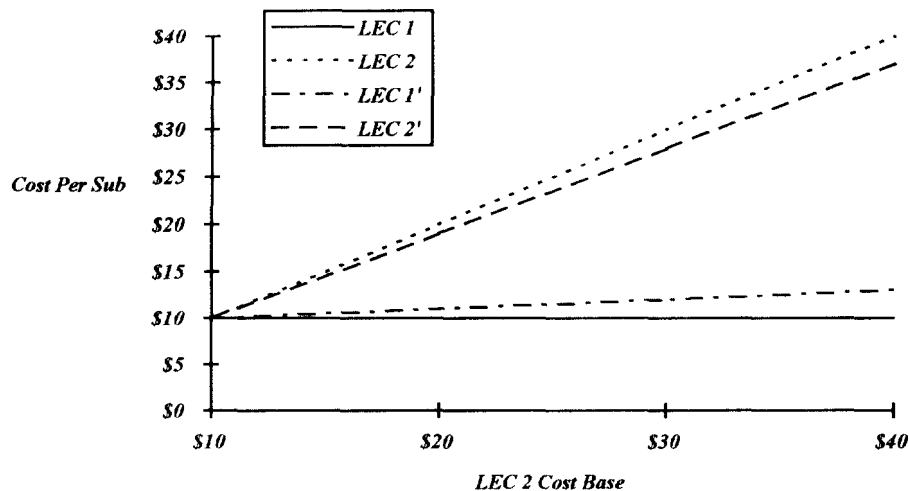
$$P_1 = A_1 C_1 + T_{1,2} C_2$$

$$P_2 = A_2 C_2 + T_{2,1} C_1$$

$$T_{1,2} = 1 - A_2, T_{2,1} = 1 - A_1$$

We now consider two cases. In Case 1 we depict an example of where access costs are prorated on an equal basis, namely 10% of the base each. In this case it is clearly shown that the efficient carrier is taxed by the inefficient and furthermore the inefficient is subsidized by the efficient. Thus in the case of equal proration of transfer rates, the less efficient carrier dominates the efficient through a subsidy.

Figure: Case 1; A=0.9, T=0.1 for Both LECs

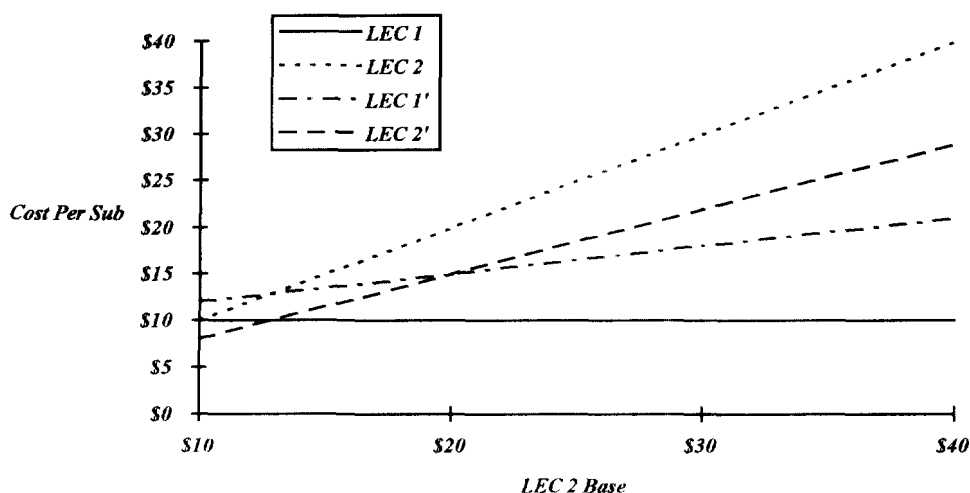


In the Case 2 example, we assume that the efficient carrier is allowed to place only 10% of its base in an access charge, and the inefficient carrier places 30% of its base in access charge. The Figure depicts a very important finding. Namely, if the inefficient carrier is allowed to place an excess amount in the base assigned to access, then it is possible for the inefficient carrier to have a lower price to the consume, and in turn drive the price of the

⁴²See Addendum 1 at the end of this filing. This was a condensation of an Ex Parte filing by Telmarc on August 17, 1994 in the matter of FCC 90-314. The issue was to show the significant Antitrust Issues that arise as a result of the access fees being based on any means other than those of Zero Access.

efficient carrier above theirs by means of the cross linking of access. The following Figure depicts the fact that until the inefficient carrier is almost twice the efficient t that the inefficient is less than the efficient. This market distortion goes to the heart of where technology and rate base allocations are for access. If the fees are kept, even as reciprocal, but based on underlying technology, the inefficient technology may drive out the efficient, a form of Gresham's Law of technology.

Figure: Case 2; $A_1=0.9$, $T_{12}=0.3$, $A_2=0.7$, $T_{21}=0.1$



The conclusion of this is obvious;

- *Under equal allocations of base and percentage, the efficient carrier is penalized by the inefficiencies of the inefficient carrier.*
- *Under the case of misallocated costs, the inefficient carrier may actual use the efficient carriers costs to price below the efficient, thus driving the efficient out of the market.*
- *The driving of the efficient from the market by the inefficient, occurs only in those market situations wherein an imbalance via government regulations occur. These markets are not cleared and reflect dramatic distortions.*

There are several policy implications from this analysis. First, we review the conclusion made.⁴³

⁴³These demonstrations have been shown in McGarty paper at TPRC in September 1993.

- *It has been demonstrated that scale does not exist in the new wireless systems capital plant if the plant is allowed to cover the area where the majority of customers are, and not be forced to cover areas where the customer density does not make economic sense. Scale is significant in capital if there is a demand to cover all customers, no matter how economically efficient. Conclusion: Scale in capital plant is an artifact of social policy mandated by Universal Service.*
- *It has been demonstrated that scale exists in the operations support services performance of common shared processing equipment and common use of software and human resources. Conclusion: There is a natural need for agglomerated "Outsourcers" to service the Local System Operators who cannot effect the scale by the size and scope of their own operations. The "Market" will allow such entities to be developed and serve the C-LECs as is done with current outsourcing. Thus market Aggregators or Disaggregators have a clear market role in establishing a basis for efficient use of market factors in clearing the market price.*
- *It has been demonstrated that scale is not a problem for the C-LEC. The C-LEC has de minimis scale from local capital and has access to the Operating Support Services on a marginal price basis from a NSE. Conclusion: The C-LEC can compete with the entrenched carrier since the C-LEC faces no scale and can price the service to market in a short period of time. The C-LEC does not need large capital resources to do this.*
- *Commoditization of the product offering, namely voice, allows for competition on the basis of price only. The C-LEC competitor can compete against the LEC RBOC if there is no access fees. Conclusions: Access fees are diseconomies of scale to the new entrant. They act as a financial barrier to entry to any new competitor.*
- *An new entrant, in an access free environment can compete against the entrenched monopolist with orders of magnitude less investment by leveraging and using the new wireless technology. Quality is maintained by the outsourcing of the back office operations. Conclusion: There is no qualification for entry to new competitors other than local operations expertise. The scale and scope in the existing monopolists can be nothing more than an added capital burden on the new entrant.*
- *Bilateral access fees are determined on two key factors: the providers cost base and the providers allocation of assets to access. The analysis of access clearing or settlements using this algorithm leads in all cases to a control of the price and the existence of a monopolists controlled barrier to entry through a manipulation of*

access fees. Conclusion: Only through the elimination of access fees can any new entrant hope to compete on price and thus benefit the buyer.

g) Bill and Keep Arrangements

1. Under bill and keep arrangements, broadly construed, neither of the interconnecting networks charges the other network for terminating the traffic that originated on the other network, and hence the terminating marginal compensation rate on a usage basis is zero. ...

2. As noted earlier, section 252(d)(2)(B)(i) provides that the standards in section 252(d)(2)(A) restricting what may be considered "just and reasonable" terms and conditions for reciprocal compensation "shall not be construed to preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill and keep arrangements)." ... For example, one approach would find that section 252(d)(2)(B)(i) allows states to establish bill and keep arrangements only when either of two conditions are met: (1) the transport and termination costs of both carriers are roughly symmetrical and traffic is roughly balanced in each direction during peak periods; or (2) actual transport and termination costs are so low that there is little difference between a cost-based rate and a zero rate (for example, during off-peak periods). We seek comment on the policies that the states have adopted with respect to bill and keep arrangements. We also seek comment on the historical interconnection arrangements between neighboring incumbent LECs, which, in many cases, used a bill and keep approach with respect to compensation for transport and termination of telecommunications traffic. We also seek comment on whether one or more of these state policies could be incorporated as models for federal policy.

The Respondent has argued above that the only viable interconnection pricing between competing LECs is zero access. The Respondent has noted elsewhere that the classic work in the field of optimal access pricing, called the Baumol-Willig Pricing Formula, was based upon an ad hoc propiter hoc argument. Namely the optimization criteria used by Baumol and Willig was to include maximizing the profit of the incumbent monopolist. Thus the existence of access and the justification for the elusive externalities. However, as has been shown by the Respondent, if one were to maximize consumer welfare the answer is zero access.

Notwithstanding the theory, which we argue justifies the zero access approach for competing LECs, we argue also as follows:

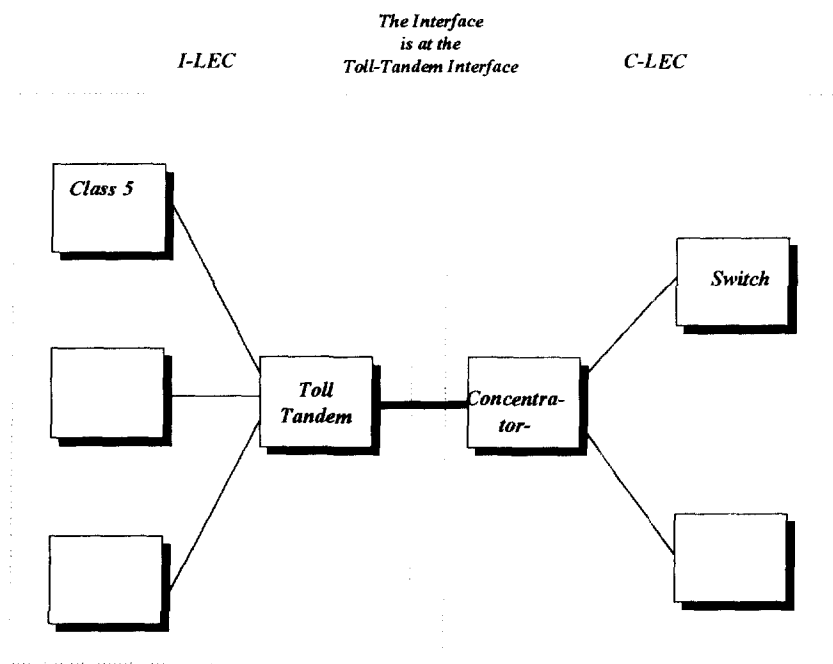
The I-LEC has the monopoly position in the market. It controls the infrastructure, has reached marginal rates for its service, and has used its monopoly power to reap monopoly profits.

The C-LEC has to work in an environment of limited scale and "buy" customers away in a purely commodity driven market wherein price is the only factor that the consumer will have as a determinant.

The I-LECs, especially the RBOCs, as has been demonstrated and alleged by the Respondent, have created and continue to create barriers to entry by regulatory delay, refusals to deal, predatory pricing schemes, and tying arrangements, amongst other schemes deployed in a deliberate and calculated fashion to delay competition.

The economic argument states that the consumer should pay for their service on the basis on what their provider costs to supply that service and that if a free market is to be created and the market cleared by means of prices reflective of costs and economic choices, then there is no other alternative than to have zero access.

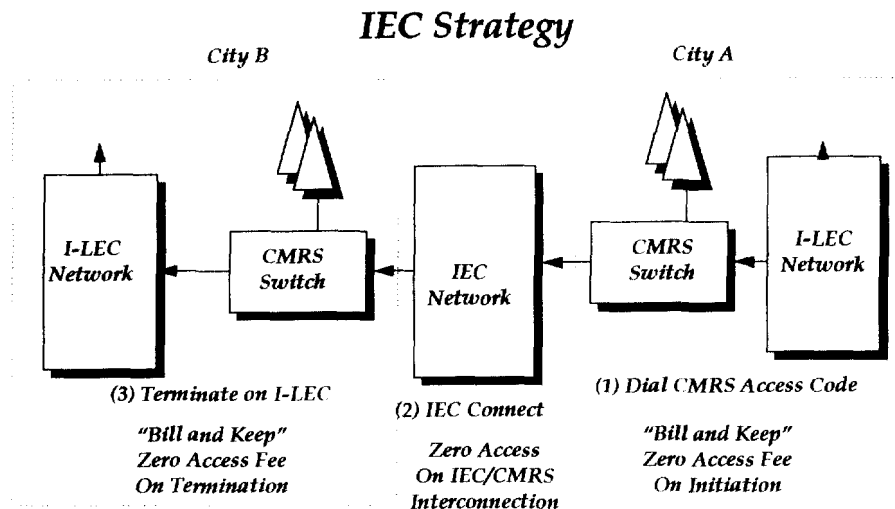
The issue is where is the point of demarcation between networks? The answer is at the point of trunk interface. Specifically this is shown below:



The Respondent argues that the Customer of the I-LEC should pay for all costs on their side of the demarcation line as should the C-LEC customer. Thus if the C-LEC is more cost effective then its prices should be lower and thus benefit the customer directly.

As has been shown before, we have argued that any form of mutual compensation may introduce economic inefficiencies wherein the subscriber pays the inefficiencies of the inefficient competitor.

The IEC and LEC issues are described in the following Figure:



The Respondent herein notes the issue of how an IEC can avoid the I-LEC access fees under the non Section 251 elements. Thus there is a problem regarding this as shown in the scheme in the above figure. The Respondent concludes that the IEC should also not continue to pay interconnection.

h) Other Possible Standards

1. *We solicit comment on whether any of these or other alternatives should be used as the principle for pricing transport and termination of traffic between LECs, and how they would be applied.*

D. Duties Imposed on "Telecommunications Carriers" by Section 251(a)

1. *We first need to identify the entities that qualify as "telecommunications carriers" under section 251. A "telecommunications carrier" is defined in section 3(44) as "any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (as defined in section 226)." Section 3(44) further provides that "[a] telecommunications carrier shall be treated as a common carrier under this Act only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage."*

2. *We seek comment on which carriers are included under this definition, and on whether a provider may qualify as a telecommunications carrier for some purposes but not others. For example, how does the provision of an information*

service, as defined by section 3(a)(41), in addition to an unrelated telecommunications service, affect the status of a carrier as a "telecommunications carrier" for purposes of section 251?

3. We ask commenters to address how this provision should be applied to incumbent and non-incumbent LECs.

The Respondent has argued that any and all telecommunications carriers should be treated as a common carrier. If this were not the case then warehousing and other schemes may occur. The Respondent argues that the CMRS entities, especially, should be treated as a common carrier in any way in which it delivers a service.

E. Number Administration

1. Selection of a neutral number administrator

1. The Respondent has no Comments on this Section.

2. State role in numbering administration

1. The Respondent has no Comments on this Section.

3. Cost related to number administration

1. The Respondent has no Comments on this Section.

F. Exemptions, Suspensions, and Modifications

1. The Respondent has no Comments on this Section.

G. Continued Enforcement of Exchange Access and Interconnection Regulations

1. The Respondent has no Comments on this Section.

H. Advanced Telecommunications Capabilities

1. *we believe it relevant to also seek comment herein on how we can advance Congress's subsection 706(a) goal within the context of our implementation of sections 251 and 252 of the 1996 Act.*

The Respondent in its current operations and in prior operations has aggressively pursued the development and delivery of educational services and healthcare services. The Respondent had worked with various Massachusetts educational institutions and health care institutions in the development of new wireless services.

Specifically, from the Telmarc Quarterly report of 1993, Third Quarter, we have stated:

"(v) Continued Discussions with Commonwealth of Massachusetts Infrastructure Supporters to assist them in providing state telecommunications via a wireless service. These included the State Fire Marshals Office, The Massachusetts Corporation for Education Communications, and Delphi. Continued discussions with the Internet Society to establish Internet as a data backbone alternative for wireless data support."

The Respondent has stated that there is need for continued development of the open network in the issue of interconnection and unbundling. Namely, the ability for entrepreneurial companies such as the Respondent to develop these areas is totally dependent upon the Commissions responsive to the support of competition.

III. PROVISIONS OF SECTION 252

A. Arbitration Process

1. The Respondent has no Comments on this Section.

B. Section 252(i)

1. The Respondent has no Comments on this Section.

IV. CONCLUSIONS

The Respondent reiterates the simple conclusion. Competition will only exist if the I-LEC is compelled under Section 251 to open their networks, both wire and wireless, to other new entrants.

The Respondent has focused on three elements in this Response. Specifically:

- *Interconnection in terms of termination of local traffic and other local access issue are a critical element for the existence for local competition. The Respondent has taken the position that for any form of competition to exist and have the minimum chance of growing then a zero access fee must be enacted. The Commission has taken the position that "Bill and Keep" is a viable option. The Respondent has further taken the position that any form of "cost" based pricing of interconnection will create an immediate barrier to entry to any new entrant. The I-LECs have, as has been demonstrated by the Respondent, continuously and vigorously opposed any interconnection and access agreements that allow effective competition. They have done this through regulatory delay, through negotiating delay, and through other oppressive means and methods. The Respondent argues that the only way a new entrant can ever compete is if this barrier to entry is totally removed.*

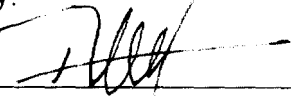
- *The CMRS carriers are in most cases effectively acting as a LEC and if they are a subsidiary of an I-LEC, act as an I-LEC. The CMRS entities can provide exchange services and telecommunications access services and thus are de facto a LEC. As a LEC they represent another competitive alternative in the LEC market place. The Respondent has requested that as a result of this obvious conclusion that the Commission affirm that the I-LEC CMRS be required to unbundle, that all CMRSs be required to remove all tying arrangements and allow direct C-LEC interconnection and not being forced to go through I-LEC interfaces, and that all CMRSs deal equally and equitably with any and all other carriers seeking to purchase access and transport.*
- *Unbundling is a complicated issue and it is shown by the Respondent in this response that the a priori determination of unbundled elements is unacceptable. The Respondent takes the position that the market and technology will determine what the unbundled elements are and that any a priori judgment is doomed to immediate failure. The Respondent has demonstrated several examples wherein this is occurring. For example, one may seek to unbundle the SS-7 framing sequences for use in the CPE side and not within the network. This may allow for significant enhanced services development.*

In addition to the above three general conclusions, the Respondent has presented an adjunct analysis of how these actions may be in violation of certain antitrust statutes, such as, tying arrangements, refusals to deal, and creating barriers to entry, as well as predatory pricing. The Respondent has taken the general position that the Commission should, when there is doubt as to the definiteness of a specific ruling should establish a process rather than boundaries of specific limitations. The Respondent argues that a successful implementations of Sections 251 and 252 will be effected by allowing maximum flexibility and ease of implementation.

Respectfully submitted,

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May 16, 1996

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